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Power BI DAX Formula

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POWER BI

- Power BI is one of the most robust and powerful business intelligence tools.

- One of the most powerful features of Power BI is DAX (Data Analysis Expressions), which is a formula expression designed for advanced data analysis.

- DAX formulas contain functions, operators, statements, and more.

DAX

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- **DAX** formulas are made up of 3 core components :

  - **Syntax** – Proper DAX syntax is made up of a variety of elements, some of which are common to all formulas.

  - **Functions** – DAX functions are predefined formulas that take some parameters and perform a specific calculation.

  - **Context** – DAX uses context to determine which rows should be used to perform a calculation.

Where are DAX Formulas Used in Power BI?

There are three ways you can use DAX formulas in Power BI:

▶ **Calculated Tables -** These calculations will add an additional table to the report based on a formula.

▶ **Calculated Columns -** These calculations will add an additional column to a table based on a formula. These columns are treated like any other field in the table.

▶ **Measures -** These calculations will add a summary or aggregated measure to a table based on a formula.

BASIC DAX Formulas

Arithmetic Operators

▶ *Addition* **(+) :**

  ▶ *Total Amount = Sales[Quantity] + Sales[Discount]*

▶ *Subtraction (-):*

  ▶ *Net Sales = Sales[SalesAmount] - Sales[Discount]*

▶ *Multiplication(*):*

  ▶ *Revenue = Sales[Quantity] * Sales[Price]*

▶ *Division (/):*

  ▶ *Profit Margin = Sales[Profit] / Sales[SalesAmount]*

BASIC DAX Formulas

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Aggregation Function

► *SUM:*

   ► *Total Sales = SUM(Sales[SalesAmount])*

► *AVERAGE:*

   ► *Avg Sales = AVERAGE (Sales[SalesAmount])*

► *MIN:*

   ► *Min Sale = MIN(Sales[SalesAmount])*

► *MAX:*

   ► *Max Sale = MAX(Sales[SalesAmount])*

► *COUNT:*

   ► *Total Rows = COUNT(Sales[SalesAmount])*

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Thank You

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